Claims:

1. A cellular composition comprising one or more cells having a property characteristic of a neural stem cell and wherein said neural stem cell is capable of long term culture.

2. A cellular composition according to claim 1 wherein the neural stem cell has a property characteristic of a foetal neural stem cell.

3. A cellular composition according to claim 1 ~~or 2~~ wherein the neural stem cell is characterised by an ability to grow indefinitely in tissue culture without undergoing transformation and to retain a degree of developmental plasticity.

4. A cellular composition according to ~~any one of claims 1 to 3~~ claim 1 wherein the neural stem cells are identified by markers found on neural stem cells including nestin and vimentin.

5. A method of preparing a cellular composition comprising one or more cells having a property characteristic of a neural stem cell wherein said neural stem cell is capable of long term culture, said method comprising:

obtaining a source of neural stem cells;

preparing a suspension of cells from the source;

contacting the suspension of cells with a suitable medium to maintain the neural stem cells in a cell culture; and

culturing the cells including passaging and propagation of the cells.

6. A method according to claim 5 wherein the source of the neural stem cell is a foetus differentiated at a stage after the embryonic stage.

7. A method according to claim 8 wherein the source of the neural stem cell is a head or spinal cord of the foetus.

8. A method according to ~~any one of claims 5 to 7~~ claim 5, wherein the suitable medium includes at least one lipid and at least one mitogenic factor.

9. A method according to claim 8 wherein the lipid is selected from the group including cholesterol, triglycerides or phospholipids or a combination thereof.

10. A method according to claim 8 ~~or 9~~ wherein the mitogenic factor is selected from the group including bFGF, EGF, PDGF or a combination of EGF and bFGF.

11. A method according to claim 10 wherein the EGF is in the range of 2 to 20 ng/ml.

12. A method according to claim 11 wherein the bFGF is in the range of 2 to 20 µg/ml .

13. A method according to ~~any one of claims 8 to 12~~ claim 8, wherein a chemically defined lipid concentrate is present in a ratio of 1:100.

14. A method according to ~~any one of claims 8 to 13~~ claim 8, wherein the media further includes a cell survival factor.

15. A method according to claim 14 wherein the cell survival factor is selected from the group including transferrin, insulin, growth factors including EGF, bFGF (FGF-2) or PDGF, lipids and selenium.

16. A method according to ~~any one of claims 5 to 15~~ claim 5, wherein the passaging and propagation of the cells is conducted when the cells bud from the cell culture.

17. A cellular composition prepared by the method according to ~~any one of claims 5 to 16~~ claim 5.

18. A cellular composition according to claim 17 wherein the composition comprises a substantially homogeneous population of cells having a property characteristic of a neural stem cell.

19. An isolated neural stem cell prepared from a cellular composition according to ~~any one of claims 1 to 4, 17 or 18~~ claim 1.

20. A genetically modified neural stem cell, prepared by introducing into or deleting or modifying a gene from a neural stem cell according to claim 19.

21. A method of preparing a genetically modified animal, said method comprising introducing a neural stem cell according to claim 19 ~~or 20~~ into an oocyte or embryo and allowing the resulting embryo to mature to a foetus or animal.

22. A method of producing an animal, said method comprising introducing a continuously growing donor cell nucleus from a continuously growing donor cell into an oocyte or embryo and allowing the resulting embryo to mature and to preferably develop to a foetus or animal.

23. A method according to claim 22 wherein the donor cell is a continuously growing somatic cell.

24. A method according to claim 23 wherein the donor cell is a genetically modified somatic cell and wherein said genetic modification includes destroying, modifying or deleting a gene from the cell.

25. A method according to claim 22 wherein the donor cell is a neural stem cell ~~according to claim 19 or 20~~.

26. A method according to claim 22 wherein the donor cell is a TERT cell.

27. A method according to claim 26 wherein the TERT cell is a genetically modified TERT cell and wherein said genetic modification includes destroying, modifying or deleting a gene.

28. An embryo produced by the method according to ~~any one of claims 22 to 27~~ claim 22.

29. A method of producing a cell line from an embryo to produce cloned cells of an embryo, said method comprising

obtaining an embryo according to claim 28;

culturing the embryo to an advanced cleavage stage embryo;

separating and cloning the cleaved cells of the embryo; and

optionally culturing the cloned cells.

30. A cell line prepared by the method according to claim 29.

31. An animal prepared by the method according to ~~any one of claims 22 to 27~~ claim 22.

32. An animal prepared from an embryo according to claim 28.

33. A cell culture medium suitable for culturing neural stem cells in a long term culture comprising at least one lipid and at least one mitogenic factor.

34. A medium according to claim 33 wherein the lipid is selected from the group including cholesterol, triglycerides or phospholipids or a combination thereof.

35. A medium according to claim 33 ~~or 34~~ wherein the mitogenic factor is selected from the group including bFGF, EGF, PDGF or a combination of EGF and bFGF.

36. A medium according to claim 35 wherein the EGF is in the range of 2 to 20 ng/ml.

37. A medium according to claim 35 wherein the bFGF is in the range of 2 to 20 μg/ml .

38. A medium according to ~~any one of claims 33 to 37~~ claim 33 wherein a chemically defined lipid concentrate is present in a ratio of 1:100.

39. A medium according to ~~any one of claims 33 to 38~~ claim 33 wherein the media further includes a cell survival factor.

40. A medium according to claim 39 wherein the cell survival factor is selected from the group including transferrin, insulin, growth factors including EGF, bFGF (FGF-2) or PDGF, lipids and selenium.

41. A method of culturing neural stem cells said method comprising culturing the cells in the presence of at least one lipid and at least one mitogenic factor.

42. A method of culturing neural stem cells said method comprising culturing the cells in the presence of a culture medium according to ~~any one of claims 33 to 40~~ claim 33.

43. A method of treating a neurological disorder, said method comprising introducing a neural stem cell according to claim 19 into a host animal to correct the disorder wherein the neural stem cell is capable of replacing neural cells affected by the neurological disorder.

44. A method according to claim 43 wherein said neurological disorder is Parkinsons Disease.

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